

Analysis of Sonic Structure in Gnawa music

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Gnawa music from Morocco, like many musics originating from the sub-Saharan, is a variation form associated with rituals of spirit possession. Single melodic-rhythmic motives or their combinations constitute a structural set defined by a cyclic concept of time. Each set is iconic of a spirit belonging to a pantheon of supernatural entities that is sequentially invoked during ritual practice. Individual pieces are derived from these structural sets that are varied for many cycles over a steady ostinato framework. The Gnawa repertoire is made up of over a hundred pieces grouped into suites that correspond to eight major groups of supernatural entities. Previous studies (Chlyeh 1998; Hell 2002; Pâques 1991; etc.) have most often distinguished these suites by colors, and to a lesser extent, fragrances and elements that are symbolic of specific spirit groups; for example, the group of Sidi Musa spirits is represented by the color blue, the fragrance of white benzoin, and water. Musical distinctions and similarities, however, have yet to be studied. The goal is to analyze the sonic structure of individual pieces and the relationships among those belonging to the same suite, in order to determine how individual pieces are grouped into suites according to pitch, melodic contour, and rhythm, and to categorize suites musically in terms that are meaningful and culturally relevant.

To begin, this paper sets out to investigate the structural identity of an individual piece. The word "identity" should not be taken to imply that a given piece is a fixed sequence of sounds that stays the same; indeed, musicians improvise and vary the motives from performance to

performance. The identity consists instead of a succession of abstract core components that can be described using paradigmatic analysis and the *principle of seriation* “that is not only indispensable for establishing the emic-ness of constitutive units of a corpus, but for *interpreting*, with respect to this corpus, the observed characteristics of a limited number of pieces” (Nattiez 1995: 311, my translation). Analytic reductions will expose definitive features of the melody and rhythm belonging to each. Three paradigmatic charts will be constructed: a contour-based notation that serves as a skeletal description taking into account melodic motion and rhythm, an arrhythmic graph that highlights and orders the pitch or pitches most structurally significant, and a grid that facilitates the recognition of rhythmic coherence at three structural levels. The first notation gives a sonic image of the performance; the second identifies pitches at salient points of reiteration, suggesting a melodic hierarchy in the structural set and a conceivable cognitive framework; and the third reveals hierarchic rhythmic units. The aim is to apply these techniques in our search for structural sets of individual pieces which can then be used to uncover fundamental structures particular to each suite for the end of developing a theory useful for understanding and analyzing the musical subtleties across the entire Gnawa repertoire.